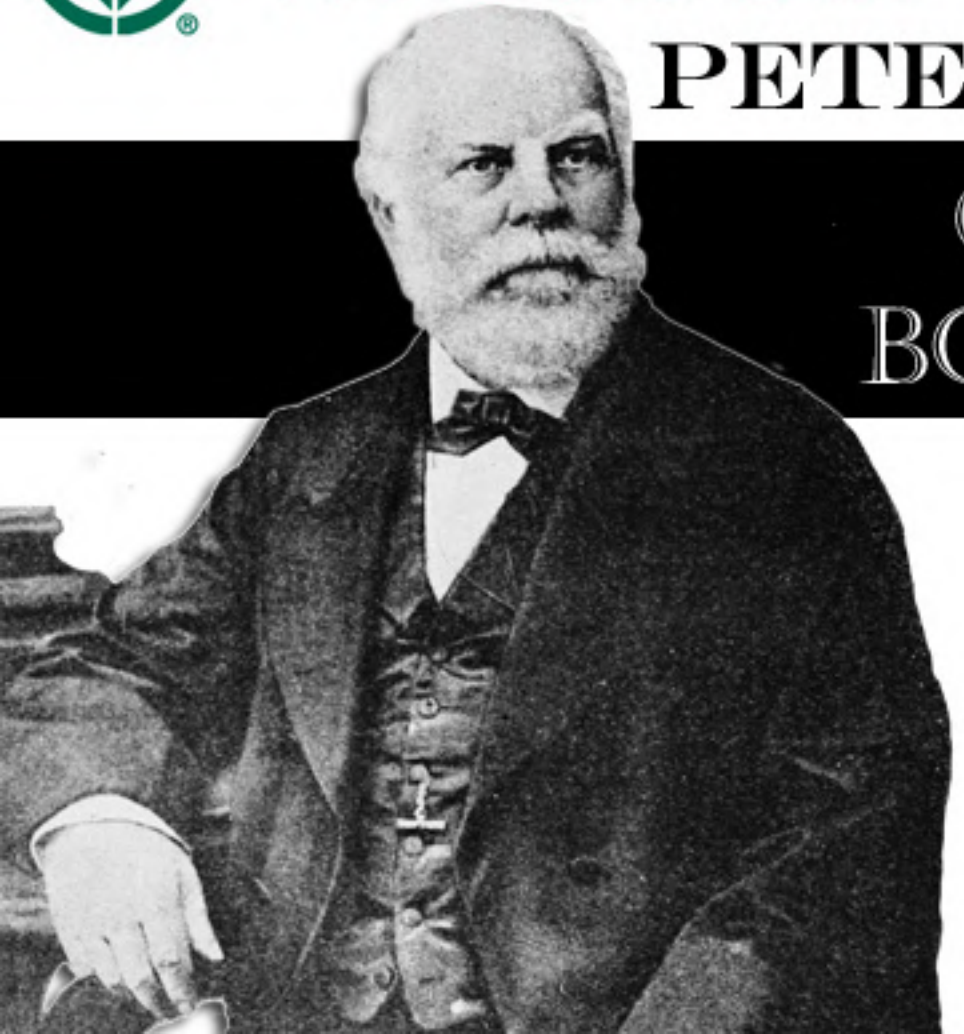
Missouri Botanical Garden

Peter H. Raven Library

George Engelmann Botanical Notebooks



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Agent Arboretum Eagle 1878

ment, and might be sent to gymnasiums, or to dyspeptic clergymen, as a means of gentle exercise in the garden, of benefit both to body and mind. The machine has been introduced to us by Mr. Thomas Jackson, of Portland, Maine, who is doing good service in distributing it.

AN AUTOMATIC GATE.—We have never seen a gate of this character that did not in time get out of order to an extent that caused an early abandonment. The idea of a self-opener is too good in a gate to be wholly given up, and we are glad to note that among those who are working on it is our ingenious friend, Dr. Weed, of Des Moines, as we find by the following in an Iowa paper:—

"We visited the farm of Dr. James Weed, yesterday, and inspected his self-opening gate. It works like magic. As you approach in a buggy the gate suddenly parts in the middle (being double) and the two parts turn over backwards, leaving the way clear to drive in, without slacking speed, even though your horse should be on the trot, and as you drive along, the gate as suddenly closes and latches as snugly as it was before you came to it. The principle on which this gate operates is difficult to describe on paper. All the machinery visible above ground is two pieces of rounded iron in the road, one on each side of the gate, about thirty feet from it. This must be run over by the buggy, its weight pressing the iron down and causing certain motor springs connecting with rods to throw the parts of the gate upward. These parts are steadied by "tortion" springs, which counteract the weight of the gate, so that there is no slam or jar as it comes down to the ground. The return of the parts of the gate is caused on the same principle by the buggy running over the other piece of rounded iron inside the enclosure. The machinery is so adjusted that the principle works precisely the same whether going in or out of the enclosure. It is not only a novelty, but a pleasure and convenience to ride along and, without moving hand or foot, have the gate open and close for you by some unseen power. Dr. Weed has been experimenting on these gates for several years, and his latest improvements are. substituting motor springs for gearing, and "tortion" springs for the former method of balancing the gates with stones of equal weight. He claims that it is now perfect in every particular, and not liable to get out of order in any kind of weather. He secured a patent last year. These gates are rather expensive—$200—but what is that to a man who is able and willing to pay for the thing that suits him? We wish the Doctor success after his long years of patient study in perfecting his invention."

THE TULIP TREE IN ENGLAND.—A correspondent of *Gardener's Chronicle* says: "There is in Lord Llanerton's grounds, Woolbeding, near Midhurst, Sussex, 'a very fine Tulip tree,' which was acknowledged by the late Sir Wm. Hooker to be the finest specimen in the kingdom; and it certainly is a magnificent tree, being one mass of foliage from its summit to the ground. Its measurements in 1871 were as follows: Height, 91 feet 5 inches; girth at 3 feet from the ground, 17 feet 2 inches; circumference round the branches, 79 yards. It is in perfect health, and has doubtless increased somewhat in size since the above measurements were taken."

WINTERING ECHEVERIAS.—Echeverias which have served for borders, beds, or floral inscriptions during summer, if potted to pass the winter, are liable to rot or spindle up. A method of preserving them, which occupies practically no room whatever, and which avoids the above mentioned inconvenience, is to shake out the earth from their roots when taken up in autumn, and suspend them heels up or anyhow, in small bunches, on strings stretched horizontally, like linen hung on a line to dry, beneath the roof of a cool greenhouse, which just keeps out the frost.—*Gardener's Chronicle.*

ARUNDO CONSPICUA.—Vietch says it is very similar in habit to the well-known Pampas Grass (Gynerium argenteum), but blooming about two months earlier than that variety, and lasting much longer in beauty.

NEW PLANTS.

PHYSIANTHUS ALBENS.—The *Garden* says:—"Those of your readers who are in want of a quick-growing summer climber, for covering a wall or trellis, should procure this interesting Asclepiad. A small plant of it, little more than a foot high, with a few laterals, was turned out against an ordinary wall, with a warm exposure, about the end of May, and now covers five or six square yards of surface, every joint being furnished with a raceme of pure white flowers. A month hence the shoots will be pruned back, and the plant potted up for wintering in a warm greenhouse. I have yet to learn what degree of cold it will survive, but probably it would endure mild winters in the southern counties of Eng-

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

2661-

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

land and Ireland. An easier plant to cultivate can hardly be imagined." And we notice it here to say that it is even a better plant for American gardens than for English ones. Last autumn the writer of this saw it in Ellis Park, in Chicago, more handsome than he ever saw it before, covering trellises eight feet or more high with hundreds of its large, waxy, white flowers. It is of cruel tastes, however, the flower catching insects without any use whatever, so far as is at present known.

PENTSTEMON HUMILIS.—One of the prettiest of the dwarf Pentstemons of the Rocky Mountains, forms the subject of a handsome colored plate in the *Florist and Pomologist* for November.

NEW HARDY TREES.—From various sources we make up the following, that will probably all prove hardy in our climate:

Maakia amouriensis.—We had a specimen of this from the collection of Alfred Cope. The flowers are in close white bunches, and the leaves have much the appearance of a Cladrastus tinctoria. It will be a good acquisition to our list of hardy trees.

Corylopsis spicata.—We have before given some account of this beautiful Japan shrub, one which will probably prove hardy in our country. The *Gardener's Magazine* has recently given a wood cut of it, and with the following description: "This interesting hardy Japanese shrub is regarded by hasty observers as a hazel or a near relative of the nut tribe, but as the seed is a hard capsule, those who watch it through its course learn that in one respect at least it is far removed from the hazels. It is, in fact, a member of the Liquidambar family, and its generic name of Corylopsis refers to the striking resemblance of its leaves to those of a hazel, not to its flowers or fruit.

"*Corylopsis spicata* is a free-growing shrub possessing considerable beauty, and especially handsome in the spring when its flowers appear, as they bear some resemblance to the elegant inflorescence of Garrya elliptica, being produced in drooping racemes in the greatest profusion. They appear before the leaves, and are of a pleasing greenish yellow color, pleasantly fragrant, and attractive to the bees. The leaves which follow are large, subcordate, and of a full green color, like those of the hazel. Those who are now planting will do well to include this useful shrub in the list of desiderata for the shrubbery."

Othera japonica.—The English papers say of this, which will perhaps prove hardy in at least our Middle States: "A new and beautiful evergreen shrub. One of the most distinguished Japanese travellers says this is perhaps the prettiest evergreen they have in Japan; it grows about twenty feet high, has dark green leaves and a profusion of bright red fruit; it is very effective and perfectly hardy."

A NEW STRAIN OF DRACÆNAS.—Mr. Bause, who was the first to break up the old-fashioned Coleus into so many beautiful kinds, and without which our gardens would make now but a poor show, has done the same thing now for the Dracæna. The new strain is said to be among the most beautiful of leaf plants, quite as striking as the Coleus. No doubt some of our enterprising florists will soon offer them in this country.

PYRACANTHA JAPONICA.—We have not noticed before that there is a Pyracantha under this name in Europe. It appears there are a number of good Japan trees and shrubs in the Old World awaiting introduction here. The *Garden* says: "In town gardens, Pyracantha japonica is now one of the most attractive of all wall plants. In the Royal Horticultural and also in Kensington Gardens, this plant is now the admiration of all who see it. Cratægus Aronia, in Kensington Gardens, is also just now strikingly beautiful, as is likewise the crimson-fruited Cotoneaster frigida, which, as a town tree, ought to be more extensively planted than it is.

STYRAX JAPONICA.—This hardy deciduous shrub is of dwarf compact growth, with elegantly spreading branches, furnished with bright green elliptic leaves, and gives a profusion of white flowers, somewhat resembling snowflakes. It will be a very useful plant for early forcing along with Deutzias, Spiræas, &c., and an exceedingly pretty and useful shrub for borders in the open air. It is a native of Japan.—*W. Bull.*

DEUTZIA CRENATA CANDIDISSIMA PLENA.—An exceedingly free-flowering variety, producing fine large, very double, pure white flowers. It is a very useful winter and spring-blooming plant, and looks extremely elegant when covered with its large bunches of pure white flowers.

WEIGELA LAVALLEI.—The flowers of this attractive variety are of a rich purplish red color, with yellow centres, and are very freely produced in exceedingly long bunches. It is a distinct and handsome variety of robust growth, and is also an excellent plant for forcing.—*W. Bull.*

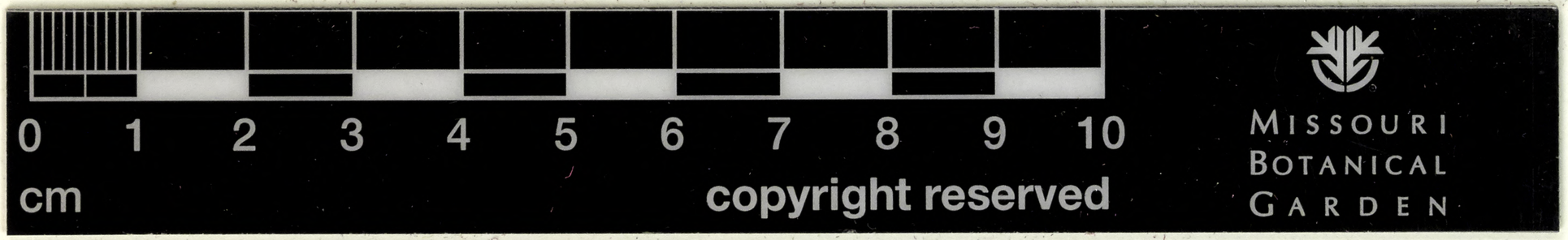
0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

1st November 1846. Santa Fe; foot of mountains, moderate hills and high prairies. Also on the road from Bent's Fort to Santa Fe; and near Bents Fort, on the south side of Arkansas river on rising ground. Plant, upwards of 5 feet height and the lower part of the main stem in some instances 5 inches diameter. Spines sheathing. Fruit lateral as well as terminal, ~~either~~ hard and dry; but by far the greatest number keep soft even through the winter and have a lively yellow color ~~tinged~~ which on the northern side of some passes over into green.
This plant seems to stand the cold a great deal better than Nos 8 & N7.

A Fendler M Mexico

9.

Opuntia arborescens



- November 1846. Santa Fe. To tree № 4. — — — — — 2662 25.
11th November 1846. Santa Fe. To tree № 5 — — — — 26.
25d December 1846. Santa Fe. From a Cactus similar to № 7. — 28.
These fruits differ from those of № 7. 1st in not having spines.
2dly in being narrow at the top, while those of № 7. are umbel-shaped. 29.
7th March 1847. Santa Fe. Eastern mountains. From cactus № 8,
Fruit situated not only on the edge-nodes but also on the lateral ones.
10th March 1847. About 8 miles SW. of Santa Fe. From Cactus
№ 6 30.

VI Roots.

3d October 1846. Poni-creek. To herb № 26. — — — — 1.
16th January 1847. Santa Fe. To herb № 45. — 2.
29th January 1847. Santa Fe. To herb № 46. — 3.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

78

O. arborescens

Rodtler del 1858

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

2663

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

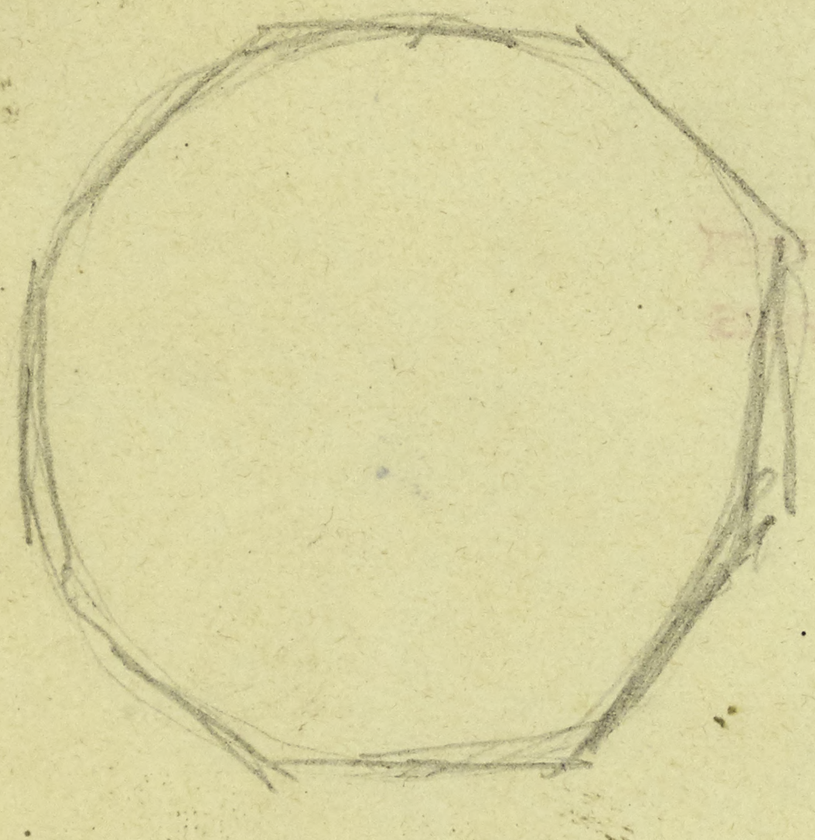
0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Opuntia arborescens

Torrey's spec.

2me 1860

Pollen $\frac{19}{412} - \frac{21}{412}$



angulare

coll. 1847

but too dark

to be seen

distinctly

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

2664

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

ALEX. LEITCH,
POTHECARY & PHARMACEUTIST,
Marble Building, Cor. Fourth & Olive Sts., St. Louis, Mo.

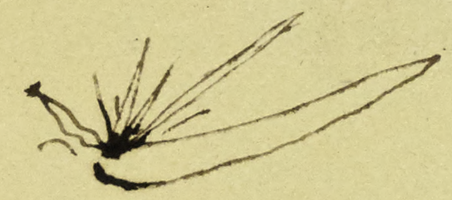
0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Hort Dyck Jan 1857

Opuntia arborescens Miles Op. imbricata

[and Op rosea is probly the same]

The specimen of O. arborescens here, raised from my seed, have shorter and perhaps less ovate tubercles and more numerous spines



Hort Dyck

Op. imbricata is stouter, with more prominent tubercles, fewer spines, & Bambos Tomentosa vestita Lata

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

2665

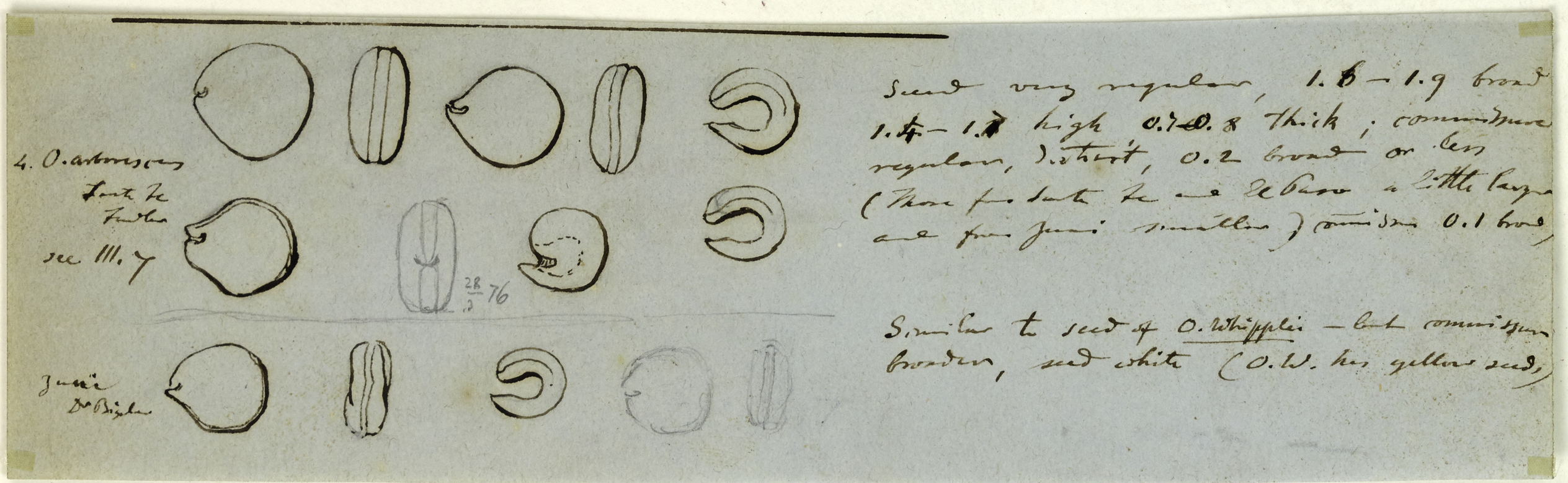
You are requested to join the Profession at Parlor No. 5, Southern Hotel, this evening, from 8 to 10 o'clock, to meet Dr. MARION SIMS.

Drs. JOHNSON AND MOSES, SR.,

Committee.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

2666
MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Opuntia arborescens

Albion

New Mexico

July 1882 A F Bandelier

petals yellowish white; 7–8 stigmas

white, filaments green.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

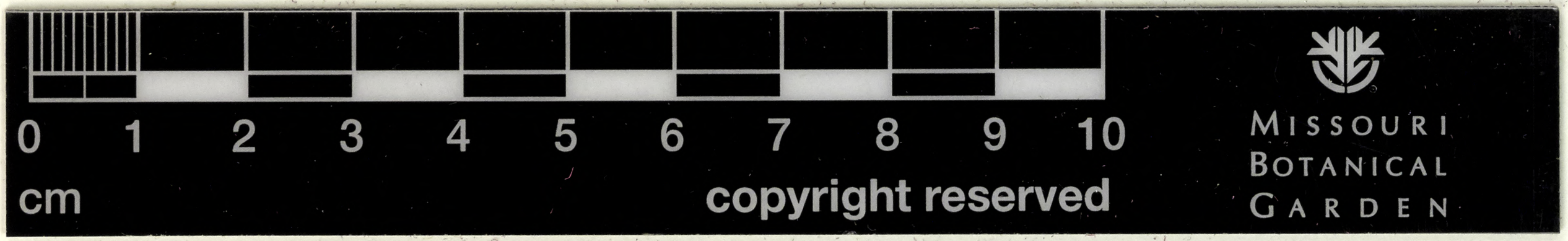
2667

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Rosa blanda Opuntia.

Santa Fe'



Opuntia arborescens

H. B. Mus

June 23 1865

×60

extern

stam

Pollen

×150

= 0.040 Li

intern

stam

Pollen

×280

= 0.054 Li

×415

= 0.051

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

8992

cm 0 1 2 3 4 5 6 7 8 9 10
Copyright reserved
MISSOURI BOTANICAL GARDEN

Opuntia arborescens June 25 1865

Herb Dr. Wislizenus

(ex Santa Fe)

Seed & ovary with style

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

ALEX. LEITCH,

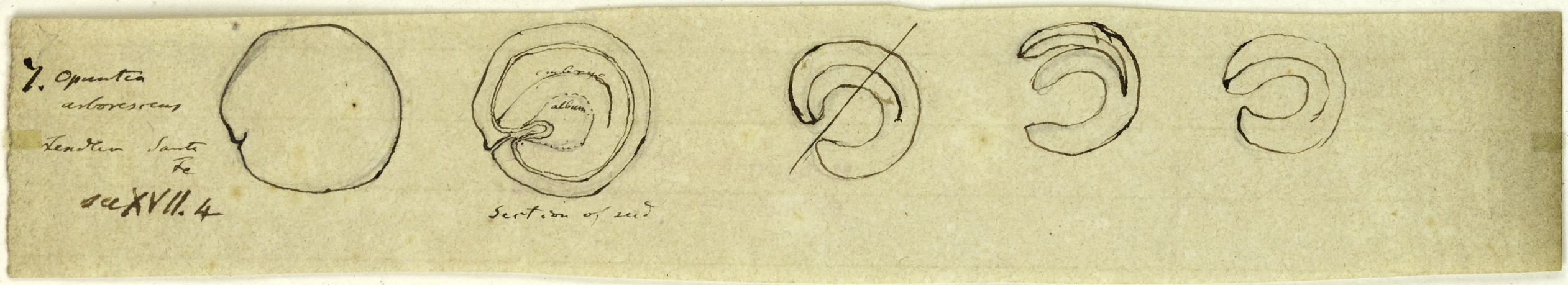
APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
SCIENTIFIC PAPERS

2669

0 1 2 3 4 5 6 7 8 9 10 cm
Copyright reserved
MISSOURI BOTANICAL GARDEN



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI
BOTANICAL
GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

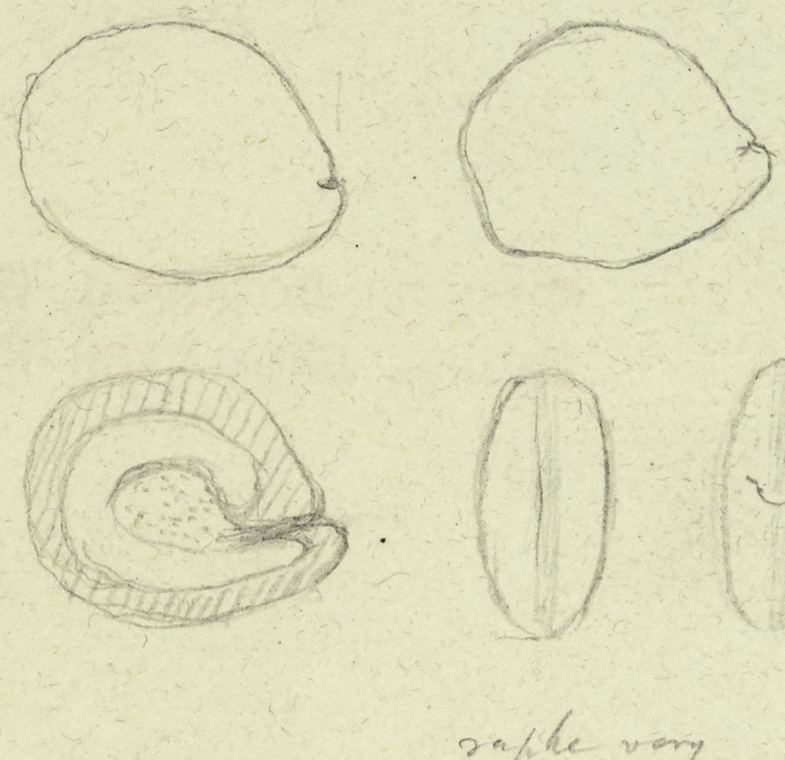
2670

Opuntia arborescens ? March 28 1876

Anjou F. Buschoff 1871

25 areolae
in 8/13 order

x4



raphe very
indistinct

ARBORETUM
GRAY HERBARIUM

2671

Alex. Leitch,

APOTHECARY & CHEMIST.

Cor. 4th & Olive Sts., St. Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Hort Dyck Jan 1857

Op. arborescens is like Op. imbricata 2672
I and Op. rosea is probably the same
thing? — The specimens of O. arborescens
here raised from my seeds
have shorter and perhaps less acicular
tubercles, and more numerous spines.

Hasbrouck
Jan 1857

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Quercus arborescens & Engel — Whipple Rep 4 Rail 5 Jan 1859

M.S.B. Rep. II p. 58 tab ~~25~~ fig 16-17 P.R.R. ~~III. pt~~
tab ~~24. f. 12~~. 1855-6. tab 18. fig 4. tab 24. f. 12 Sy. Cal 51
western New Mexico. —

Newberry, Ives Exp.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

2673

No 4. Opuntia arborescens. forming a striking feature in the scenery of the upper country along the rio Bravo and on the high dividing ridges between this river and rio Pecos. Its occurrence seems to be in a close relationship of the soil it stands upon. On the road between the Pecos river and Comanches spring there appear several geological islands formed by igneous rocks after having penetrated from below the drift and the upper cretaceous strata together with the strata of magnesian? limestone. On those islands I noticed this Opuntia first appearing and disappearing with them.

Drawing. Natural size one branch with the carpels and the skeleton.

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
Missouri Botanical Garden

2675

Op. arborescens

in the neighborhood of Laredo on the Arroyo Chacon and the surrounding arid ridges. Afterwards I met with again in a similar locality in the crevices of high rugged ~~[illegible]~~ riverbanks at the Island of the Patriarches some little distance above Mier. Plant drawn in natural size.

No 8. Cereus (Pittayah or Pitalla) blossoms purple, fruits eatable. common throughout the whole cretacious formation of the Rio Bravo country. (Half of natural size)

this is No 4 of 2nd Mexican Letter. Always simple ??

No 9 & 10. ~~Mam~~ Mammillarias. More common in the upper then in the lower part of the country. (Natural size)

M. missouriensis & applanata

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

2674

June 23. 1865 Opuntia arborescens for the first time in bloom in Illinois in the Missouri Botanic Garden.

Stem 18 lines long 12 l. Diamt. with 17 or 18 elongated very prominent tubercles in 5/13 ranges; the largest ones 1 inch long, lowest & uppermost smallest; each tubercle bears a petalous leaf, lowest ones three lines long, others 6–9 lines long bearing in the axil the areola, with 2–4 white bristly middle & upper ones Spines 3–9 lines long, a short upright white tomentum with 1–3 other glands just perceptible above it, and a bundle of short white bristles

Plants purple, short & very thick, tubercles from 3–4 l. long. outer ones inner slender and longer, 6–7 l. long; — base of tube naked for 6 lines

Stigmata 6 Style purple base whitish orange exhibiting erect, short, thick, blunt very thick & stout verrucose, conical

2676

Donnerberg Dec 1859

Lieber Jos Dr

Letter, begnahm Sie
sich so bald als möglich mit
Einsenden Dank, der mein Bruder
ein Ihr schätzbares Leben sch.

Achtungsvoll Ihr
A. Waldauer

Dr Geo. Engelmann

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

O. arborescens Born my Santa Fe seed
Good plants with short tubercles, ovate,
and very numerous spines. —

Hort Dyck Jan 1857

O. pusilla looks very much like my 2677
but spines smaller,
O. bulbispina perhaps
British and without bulbs
& cultivation. —

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS